Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Evolution Test

**True/False:** Read each statement and decide whether it is true or false. If it is true, write “True” next to the statement. If false, write “False” next to the statement. Do not just mark as a “T” or an “F.”

\_\_\_\_\_\_\_\_\_\_ 1) Individual organisms can evolve.

\_\_\_\_\_\_\_\_\_\_ 2) Species and populations can evolve.

\_\_\_\_\_\_\_\_\_\_ 3) Charles Darwin was the founder of the idea of evolution by natural selection.

\_\_\_\_\_\_\_\_\_\_ 3) Having camouflage in order to avoid predators is an

adaptation.

\_\_\_\_\_\_\_\_\_\_ 4) According to evolution, if someone lifts weights and becomes very muscular, they can pass on their strength to their children.

\_\_\_\_\_\_\_\_\_\_ 5) In disruptive selection, it is favorable to be an average individual.

\_\_\_\_\_\_\_\_\_\_ 6) A species is a group of organisms that can interbreed and produce fertile offspring.

\_\_\_\_\_\_\_\_\_\_ 7) Adaptive radiation is a form of convergent evolution.

\_\_\_\_\_\_\_\_\_\_ 8) Selection for average individuals is called stabilizing selection.

\_\_\_\_\_\_\_\_\_\_ 9) Gradualism and punctuated equilibrium describe two different patterns by which evolution can occur.

\_\_\_\_\_\_\_\_\_\_ 10) Populations of bacteria becoming resistant to antibiotics is an example of evolution.

\_\_\_\_\_\_\_\_\_\_ 11) Natural selection is the driving force behind evolution.

\_\_\_\_\_\_\_\_\_\_ 12) Evolution not widely accepted by scientists.

**Multiple Choice:** Choose the letter of the best answer.

\_\_\_\_\_ 13) Which of the following statements describes natural selection?

1. Organisms produce more offspring than can survive in nature.
2. Organisms with favorable variations are more likely to survive.
3. The surviving organisms pass on their favorable traits to their offspring.
4. All of these are parts of natural selection

\_\_\_\_\_ 14) Which of the following is a type of evidence for evolution?

a) biochemistry b) comparative anatomy

c) embryology d) all of these

\_\_\_\_\_ 15) Which of the following can be referred to as the fundamental

concept or the cornerstone of biology?

a) gradualism b) evolution

c) creationism d) punctuated equilibrium

\_\_\_\_\_ 16) When one original species adapts to a variety of different habitats

and eventually becomes several different species it is known as:

a) convergent evolution b) adaptive radiation

c) genetic equilibrium d) all of these

\_\_\_\_\_ 17) Which of the following conditions can cause a species to evolve

over time?

1. change in food source
2. change in habitat
3. increased competition
4. all of these

\_\_\_\_\_ 18) If it became an advantage for woodpeckers to have longer beaks in order to catch bugs, and woodpeckers that happened to be born with a longer beak were more likely to survive and pass on their trait, then this would be an example of:

a) stabilizing selection b) disruptive selection

c) directional selection d) none of these

\_\_\_\_\_ 19) The formation of a new species is called:

a) convergent evolution b) speciation

c) adaptation d) artificial selection

\_\_\_\_\_ 20) When two species that are not closely related evolve similar structures, body types, or behaviors it is referred to as:

a) convergent evolution b) punctuated equilibrium

c) gradualism d) all of these

**Short Answer:** Answer the following questions completely.

21) What can happen if you do not take all of your antibiotics when you are sick with a bacterial infection such as Tuberculosis?

22) Explain how your answer in number 21 is a form of evolution.

23) If a population of organisms is in genetic equilibrium, is that species evolving at that point in time?

24) Below is a recently discovered species the round-headed naugahydes. Your job is to create the world’s first naugahyde cladogram. You may use each individual’s letter to represent them when drawing the cladogram instead of redrawing the pictures. Be sure to write a brief paragraph under your cladogram rationalizing why you made it that way.

